Successful treatment with home care in a second-half twin pregnancy complicated with a too short cervix: a case report

Tahereh Zahedifard[1], Mohammad Zarei[2], Reza Nori[3]
[1]Department of Midwifery, Quchan Branch, Islamic Azad University, Quchan, Iran
[2]Nursing Department, Shirvan Center of Higher Health Education, North Khorasan University of Medical Sciences, Bojnurd, Iran
[3]Department of Nursing, Bojnurd Branch, Islamic Azad University, Bojnurd, Iran

Abstract

A 34-year-old primiparous female patient with twin pregnancy presented in the 26th week of pregnancy with a cervical length of 11 mm, with prolapse of membranes. The patient received a special kind of bed rest and supportive proceedings and the pregnancy completed successfully at 36 weeks and 5 days. In the second half of pregnancy, due to the risk of emergency cerclage, expectant management seems an appropriate and safe approach.

Keywords

Pregnancy; Cervix Disorders; Homecare

DOI: 10.4328/JCAM.5634 Received: 22.12.2017 Accepted: 05.01.2018 Publihed Online: 07.01.2018 Printed: 01.05.2018 J Clin Anal Med 2018;9(3): 242-4
Corresponding Author: Mohammad Zarei, Nursing Department, Shirvan Center of Higher Health Education, North Khorasan University of Medical Sciences, Bojnurd, Iran. GSM: +989151811304 T./F.: +985836248988 E-Mail: m.zarei@nkums.ac.ir

Introduction

Twin pregnancies have increased significantly in the past decade, mostly due to the use of assisted reproductive techniques. Twin pregnancies are associated with the risk of premature delivery. Almost half of those with a twin pregnancy give birth before 37 weeks of pregnancy. The rate is seven times greater than for single pregnancy delivery. The main cause of increased complications of preterm birth and neonatal mortality in twin pregnancies are the long-term morbidity associated with preterm delivery, respiratory distress, and infection in the neonatal period [1].

Incompetent cervix is a risk factor for preterm delivery that can be detected by dilatation of the cervix, with no pain, and prolapsed of membranes into the vagina in the second or third trimester of pregnancy. Cerclage is the surgical treatment of cervical insufficiency. Bleeding, uterine contractions, rupture of membranes and cervical dilatation of more than 4 cm are contraindications for cerclage. When the gestational age is greater, the possibility for surgery to trigger preterm labor is increased. Usually, after 23 weeks of pregnancy, cerclage should be avoided [2].

Skupski et al. (2014) suggest that cerclage treatment for incompetent cervix in the second half of pregnancy is inferior to bed rest, which allows a significant increase of the gestational age and reduces the risk of preterm birth and its complication [3]. Although it is believed that there is an association between maternal physical activity and risk of preterm labor, there is no evidence that bed rest is not useful for the patients. The purpose of this report is to present a case of second-half twin pregnancy with very short cervical pregnancy, which ended successfully with a particular kind of rest at home.

Case Report

A 34-year-old primiparous female referred to us for the first time after a positive pregnancy test. After the ultrasound at 9 weeks, it became clear that the current twin pregnancy was dizygotic. Due to the high risk of preterm delivery and inadequate cervical length, she was recommended to perform an ultrasound examination of cervical length in week 14 of pregnancy. Ultrasonography done at this time reported the pregnancy of 14 weeks and a cervical length 47 mm. At the next ultrasonography, at 22 weeks pregnancy, cervical length was 26 mm. The patient was advised to prevent preterm birth and perform cerclage. However, she refused the surgical procedure.

At the request of the patient, ultrasonography study of cervical length in the 26th week was conducted, which reported at the gestational age of 26 weeks and 3 days and the cervical length of 11 mm, with cervical herniation into the amniotic sac. According to the patient's educational status, it was explained that cerclage, at this stage of pregnancy, should not be performed and should just relax at home.

We proposed her administration of heparin, to avoid the risks of thromboembolism, yet the patient refused. Therefore, the patient was trained about the effects and risks of thromboembolism. We advised to repeatedly massage her feet, hands, body, and rest in the Trendelenburg position and move in the crawling form (all-fours) inside the house. She could be in the standing position to go to the restroom only once a day. We also trained her to avoid constipation so that less pressure would be exerted on the cervix during a bowel movement. The patient's weight and blood pressure were checked, and the fetal heart rate monitoring and uterine height were done at her home. To avoid depression and boredom and to have a good mood, the patient was given education about her companion and family in the neonatal period.

Two doses of intramuscular Betamethasone were given for assistance off lung maturity, at 24 hours interval, at 28 weeks of pregnancy. With this protocol of home rest, pregnancy progressed to 36 weeks and 4 days. Finally, the patient returned to the hospital with the rapture of the amniotic sac. On examination, it was reported a 4-cm dilation, and effacement of 70% with breech member presentation and the patient was prepared for a cesarean. Two baby boys with Apgar score of 9, were born healthy and without the need for neonatal intensive care. The mother and baby were discharged after a visit by a neonatologist to ensure their health. At follow up, both mother and baby were in good health and reported no problems.

Discussion

The cervical length reduction speed of twin pregnancies are greater than the singleton pregnancies. In our case, there was a higher rate of cervical length reduction, of about 3 mm per week, which arrived at 11mm at the end of the 26th week.

If a patient is diagnosed with uterine cervical incompetence and risk of preterm labor, there are two approaches available, like therapeutic cerclage and bed rest. Skupski et al. (2014), in their study, concluded that for very short cervix, in the second half of pregnancy, cerclage is better than bed rest [3]. Crowther et al. (2010) suggest that there is no sufficient evidence to say that bed rest, for prevention of preterm birth in twins, is effective. Although it does not reduce mortality and perinatal mortality, it canbe improve fetal growth [4]. In other studies, Galanaud et al. (2015) reported that the bed rest has long been associated with increased risk of thromboembolism [5]. However, in our patient, because the patient was advised every day in subsequence, for legs, hands and body massage, the risk was reduced. Also, considering that the patient was without uterine contractions, we advised her to go home and move on-all-fours position. This position is better than standing because according to the force of gravity, the weight of the uterus and its contents do not enter the cervix and the patient can move freely in the home. Therefore, several of the complications of bed rest, such as thromboembolism, fatigue, and muscular atrophy, are reduced [6]. This position can be used for patients who do not have contractions and only have an incompetent cervix.

Geoffrey et al. (1997) suggest that standing positions, in women with an insufficient cervix, cause dilatation of the cervix and prolapse of membranes further into the cervical canal. However, on women with a normal cervix, it had no effect [7]. Another issue they analyzed was that the patient was advised to rest on the ground, not on the bed, because the patient did not have to stand to move from the bed and, therefore, less pressure would be exerted on the cervix. Saccone et al. (2015) suggested that cerclage should not be performed very frequently in twin pregnancies with short cervical length in the second half, and any recommendation to do so requires more clinical trials [8].

Conclusion

Despite numerous studies on the management of cervical disease, there is still disagreement about the best treatment, based on the patient's condition and physician order. However, in advanced stages of pregnancy, older age, according to emergency cerclage risks, including increasing the risk of infection and loss of pregnancy, it seems that expectant treatment including bed rest, keeping a Trendelenburg position at rest, moving around on all-fours, massage of foot and body, to reduce the risk of thromboembolism, and administration of corticosteroids for fetal lung maturity and antibiotics, if required, represents an appropriate and safe solution.

Scientific Responsibility Statement

The authors declare that they are responsible for the article's scientific content including study design, data collection, analysis and interpretation, writing, some of the main line, or all of the preparation and scientific review of the contents and approval of the final version of the article.

Animal and human rights statement

All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. No animal or human studies were carried out by the authors for this article.

Conflict of interest

None of the authors received any type of financial support that could be considered potential conflict of interest regarding the manuscript or its submission.

References

1. Yazdani SH, Zynalzade M, Bozari Z, Habibi S, Moradi M. The effect of cervical cerclage on prevention of preterm labor in twin pregnancy. Iran J Obstet Gynecol Infertil. 2013; 16(62): 6-10. Persian.
2. Cunningham, Leveno K, Bloom S. Williams Obstetrics. 24th ed. Newyork: Mc Graw Hill co; 2014.
3. Skupski DW, Lin SN, Reiss J, Eglinton GS. Extremely short cervix in the second trimester: bed rest or modified Shirodkar cerclage. J Perinat Med. 2014; 42(1): 55-9.
4. Crowther CA, Han S. Hospitalisation and bed rest for multiple pregnancy. Cochrane Database Syst Rev. 2010; 7(7): CD000110.
5. Drife J. Deep venous thrombosis and pulmonary embolism in obese women. Best Pract Res Clin Obstet Gynaecol. 2015; 29(3): 365-76.
6. Maloni JA. Antepartum bed rest for pregnancy complications: efficacy and safety for preventing preterm birth. Biol Res Nurs. 2010; 12(2): 106-24.
7. Wong G1, Levine D, Ludmir J. Maternal postural challenge as a functional test for cervical incompetence. J Ultrasound Med. 1997; 16(3): 169-75.
8. Saccone G, Rust O, Althuisius S, Roman A, Berghella V. Cerclage for short cervix in twin pregnancies: systematic review and meta-analysis of randomized trials using individual patient-level data. Acta Obstet Gynecol Scand. 2015; 94(4): 352-8.

How to cite this article:
Zahedifard T, Zarei M, Nori R. Successful treatment with home care in a second-half twin pregnancy complicated with a too short cervix: a case report. J Clin Anal Med 2018;9(3): 242-4.